Attorney Docket No.

Patent 005950-845

D STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Jeremy E. Dahl et al.

Group Art Unit: 1712

Application No.: 10/758,679

Examiner:

Filing Date:

January 15, 2004

Confirmation No.: 4958

Title: LUMINESCENT HETERODIAMONDOIDS AS BIOLOGICAL LABELS

SECOND INFORMATION DISCLOSURE STATEMENT TRANSMITTAL LETTER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

_	٠	
c.		
. "	ı	

	closed is a 49 for the above	SECOND -identified patent		sclosure Statement and	d accompanying form
⊠ □ □ □ The	No additional for The fee of \$18 A statement under A statement under \$1.17(p) are a Charge A check in the Charge B Director is here	ee for submission 30.00 (1806) as so ander 37 C.F.R. § ander 37 C.	n of an IDS is recet forth in 37 C.I.97(e) is also ending the it Account No. 0. is enclosed to card. Form PT charge any appresent of the card of the c	F.R. § 1.17(p) is also enclosed. fee of \$180.00 (1806) 2-4800 for the fee due. sed for the fee due. CO-2038 is attached.	as set forth in 37 C.F.R
	er is submitted			overpayment, to Depo	on, 1000din 110. 02 1000
			Res	pectfully submitted,	
			ви	RNS, DOANE, SWECK	ER & MATHIS, L.L.P.
(650) 62	ria, Virginia 223 2-2300		Ву	Stephen F. Powell	Power
Date:	2-30-5	24		Registration No. 43,0	14

JAN 0 1 2005

ே HE வூர்ED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of Dahl et al.)
Application No.: 10/758,679) Group Art Unit: 1712
7. ppilication 140 10/100,010) Examiner:
Filed: January 15, 2004	j
·) Confirmation No.: 4958
For: LUMINESCENT)
HETERODIAMOINDOIDS AS	
BIOLOGICAL LABELS	

SECOND INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed. However, copies of the listed U.S. patents and U.S. patent application publications are not enclosed since it is no longer required according to the July 11, 2003 waiver of the requirement for copies of cited U.S. patents and U.S. patent application publications in national patent applications filed after June 30, 2003 and international applications entering the national stage under 35 U.S.C. § 371 after June 30, 2003.

The documents are being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later. Since these documents are being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.

1.

Second Information Disclosure Statement Application No. 10/758,679 Attorney's Docket No. 005950-845 Page 2

To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date 12-30-04

v: 8

Stephen F. Powell Registration No. 43,014

(650) 622-2300

P.O. Box 1404 Alexandria, Virginia 22313-1404

Substitute for form 1449A/PTO & 1449B/PTO SECOND INFORMATION DISCLOSII

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Con	Complete if Known					
Application Number	10/758,679					
Filing Date	January 15, 2004					
First Named Inventor	Jeremy E. Dahl et al.					
Examiner Name						
Attorney Docket Number	005950-845					

Sheet 1 of

JAN O F SI	.∹.), ?	•	U.S. PATENT DOCUMENTS	
Examiner Vocument Number		Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
INAV	6,433,474	B1	Horiuchi et al.	08-13-2002
	6,376,276	B1	Oishi et al.	04-23-2002
	6,352,884	B1	Yu et al.	03-05-2002
	6,326,144	B1	Bawendi et al.	12-04-2001
	6,322,901	B1	Bawendi et al.	11-27-2001
	6,309,701	B1	Barbera-Guillem	10-30-2001
	6,235,851		Ishii, et al.	05-22-2001
	6,207,392	B1	Weiss et al.	03-27-2001
_	6,151,347		Noel et al.	11-21-2000
	6,114,038		Castro et al.	09-05-2000
	6.110,276		Yu et al.	08-29-2000
	5,812,573		Shiomi et al.	09-22-1998
•	5,792,256		Kucherov et al.	08-11-1998
	5,747,118	- 11 - 11	Bunshah et al.	05-05-1998
	5,773,830		Lu et al.	06-30-1998
	5,703,896		Pankove et al.	12-30-1997
	5,701,323		Kahr et al.	12-23-1997
	5,656,828		Zachai et al.	08-12-1997
	5,653,800		Kucherov et al.	08-05-1997
	5,632,812		Hirabayashi	05-27-1997
	5,610,405		Inushima et al.	03-11-1997
	5,608,666		Inushima et al.	03-04-1997
	5,600,156		Nishibayashi et al.	02-04-1997
-	5,541,423		Hirabayashi	07-30-1996
	5,531,184		Muranaka et al.	07-02-1996
	5,504,767		Jamison et al.	04-02-1996
	5,504,323		Heeger et al.	04-02-1996
	5,478,650		Davanloo et al.	12-26-1995
	5,476,812		Kimoto et al.	12-19-1995
	5,470,505		Smith et al.	11-28-1995
	5,454,880		Saraciftci et al.	10-03-1995
-	5,420,879		Kawarada et al.	05-30-1995
	5,414,189		Chen, et al.	05-09-1995
	5,389,799		Uemoto	02-14-1995
	5,382,809		Nishibayashi et al.	01-17-1995
	5,371,382		Venkatesan et al.	12-06-1994
	5,352,908		Kobashi et al.	10-04-1994
	5,349,209		Moyer et al.	09-20-1994
	5,347,147		Jones	09-13-1994
	5,331,183		Saraciftici et al.	07-19-1994
	5,306,928		Kimoto et al.	04-26-1994
	5,275,967		Taniguichi et al.	01-04-1994
	5,273,731		Anthony et al.	12-28-1993
· · · · · ·	5,245,189		Satoh et al.	09-14-1993
	5,223,721		lida et al.	06-29-1993
	5,210,430		Taniguchi et al.	05-11-1993
	5,210,431		Kimoto et al.	05-11-1993

Examiner Date Signature Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Substitute for form 144	9A/PTO & 144	9B/PTC		Complete if Known			
SECOND INFORMATION DISCLOSURE			ND	Application Number	10/758,679		
			DISCLOSURE	Filing Date	January 15, 2004		
STATEMENT BY APPLICANT		First Named Inventor	Jeremy E. Dahl et al.				
(use as many sheets as necessary)			as necessary)	Examiner Name			
Sheet	2	of	8	Attorney Docket Number	005950-845		

	U.S. PATENT DOCUMENTS					
Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)		
	5,171,632		Heeger et al.	12-15-1992		
-	5,144,380		Kimoto et al.	09-01-1992		
	5,132,749		Nishibayashi et al.	06-21-1992		
*****	5,117,267		Kimoto et al.	05-26-1992		
	5,112,775		lida et al.	05-12-1992		
	5,075,757		Ishii et al.	12-24-1991		
	5,051,785		Beetz, Jr. et al.	09-24-1991		
	5,019,660		Chapman et al.	05-28-1991		
	5,017,734	-	Baum et al.	05-21-1991		
	4,950,625		Nakashima et al.	08-21-1990		
	4,949,347	,	Satoh et al.	08-14-1990		
	4,910,436		Collins et al.	03-20-1990		
	4,880,613		Satoh et al.	11-14-1989		
	4,638,484		Rand et al.	01-20-1987		
•	4,201,955		Elton et al.	05-06-1980		
	3,832,332		Thompson	08-27-1974		
	3,457,318	•	Capaldi et al.	08-22-1969		
	2003/0044353	A1	Weissleder et al.	03-06-2003		
	2002/0009274	A1	Gharavi	01-24-2002		
	2002/0177743	A1	Dahl et al.	11-28-2002		
	2003/0199710	A1	Liu et al.	10-23-2003		
	2004/0054243	A1	Timken et al.	03-18-2004		
	2004/0059145	A1	Liu et al.	03-24-2004		
· · · · · · · · · · · · · · · · · · ·	2004/0109328	A1	Dahl et al.	06-10-2004		

	FOREIGN PATENT DOCUMENTS										
STATUS											
Examiner Initials	Document Number	Kind Code (if known)	Country _.	Date of Publication (MM-DD-YYYY)	Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec
	02/058139	A2	wo	07-25-2002							
	02/057201	A2	WO	07-25-2002							
	95/06019	A1	WO	03-02-1995							
	03/050066	A1	wo	06-19-2003							
	2,545,292		DE	04-1979							
	US02/0050		wo	01-17-2002							
	01/83410	Α	wo	11-08-2001							
	1 043 916	A1	EP	10-11-2002							
	1 081 747	A1	EP	03-07-2001							

Examiner	Date
Signature	Considered
	of the state of th

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

, ,							
Substitute for form 14	49A/PTO & 14	49B/PT()	Complete if Known			
	SI	ECO	ND	Application Number	10/758,679		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	January 15, 2004				
		First Named Inventor	Jeremy E. Dahl et al.				
	(use as man	y sheets	s as necessary)	Examiner Name			
Sheet	3	of	8	Attorney Docket Number	005950-845		

	NON-PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. Askeland, D.R., The Science and Engineering of Materials " 2 nd Edition, pp 664-667, PWS-Kent Publishing
	Co., Boston, MA. Balaban, et al., "Systematic Classificaction and Nomenclature of Diamond Hydrocarbons-I", <i>Tetrahedron</i> 34:3599-3606 (1978).
	Baugman, G.I., "Dibromination of Adamantane", (1964). Beck, J.S., et al., ""A New Family of Mesoporous Molecular Sieves Prepared with Liquid Crystal Templates",
	J. Am. Chem. Soc. 114:10834-10843 (1992). Becker et al, "A Short Synthese of 1-azaadamantan-4-one and the 4r and 4s Isomers of 4-Amino-1-
	azaadamantane", Synthesis 11:1080-1082 (1992). Beveratos, A., et al., "Single Photon Quantum Cryptography", arXiv:quant-ph/0206136 v1 (2002)
	Bingham, R.C. et al., Chapter 18 of "Chemistry of Adamantanes", Springer-Verlag (1971).
	Bishop, R., et al., "Detection of Non-Conjugative Interactions in Rigid Cyclic Molecules by Using Carbon-13 N.M.R. Shift Values", <i>Aust. J. Chem.</i> 40 :249-255 (1987).
	Black, R.M. et al., "Adamantane Chemistry. Part 3. Abnormal Hypoiodite Reactions of 2-Substituted Adamantan-2-ols; Synthetic Routes to 4-Oxahomo-and 2-Oxa-adamantanes, and 7-Substituted-bicyclo[3.3.1]nona-3-ols", <i>J. Chem. Soc. Perkins Trans.</i> I 410-418 (1980).
	Blaney et al, "Chemistry of Diamantane, Part II. Synthesis of 3,5-disubstituted Derivatives", Synthetic Communications 3(6):435-439 (1973).
	Boudjouk et al, "Synthesis and Reactivity of 1-Silaadamantyl Systems", Journal of Organometallic Chemistry 2:336-343 (1983).
	Boudjouk et al, "The Reaction of Magnesium with cis-1,3,5-Trsi(bromomethyl)cyclohexane. Evidence For a Soluble Tri-grignard", <i>Journal of Organometallic Chemistry</i> 281 :C21-C23 (1985).
	Bubnov et al, "A Novel Method of Synthesis of 1-azaadamantane from 1-boraadamantane", Journal of Organometallic Chemistry 412:1-8 (1991).
	Canham, L., "Gaining Light from Silicon", Nature 408:411-412 (2000).
	Cao, G.Z., "Nitrogen and Phosphorus Doping in CVD Diamond", <i>Diamond</i> , edited by M.H. Nazare and A.J. Neves, INSPEC pp. 345-347 (2001).
	Chakrabarti et al., "Chemistry of Adamantane. Part II. Synthesis of 1-Adamantyloxyalkylamines", Tetrahedron Letters 60:6249-6252 (1968).
	"Computation Concepts" Chem3D Molecular Modeling and Analysis User's Guide, Chapter 9, pages 123- 144.
-	Courtney, T., Johnston, D.E. McKervey, M.A. and Rooney, J.J., "The Chemistry of Diamantanes. Part 1. synthesis and Some Functionalisation Reactions", <i>J. Chem. Soc. Perkin I</i> 2691-2696 (1972).
	Dahl, J.E. et al., "Isolation and Structure of Higher Diamondoids, Nanometer-Sized Diamond Molecules", Science 299 :96-99 (2003).
···········	S. Eguchi et al. in "A novel route to the 2-aza-adamantyl system via photochemical ring contraction of epoxy 4-azahomoadamantanes," <i>J. Chem. Soc. Chem. Commun.</i> , p. 1147 (1984).
	Fernandez, M.J., et al., "NMR Study of 1-Azatricyclo[3.3.1 ³⁻⁷]decane Derivatives", <i>J. Heterocyclic Chem.</i> 26 :307-312 (1989).
	Fernandez, M.J., et al., "Synthesis, Structural and Conformational Study of 4- α -(or β)- p -Chlorobenzoyloxy-1-azaadamantane Hydrochloride", <i>J. Heterocyclic Chem.</i> 26 :349-353 (1989).

Examiner	Date	
Signature	Considered	
+FYAAMAIED- Living (itation is in an forman as with \$4.0.5.0. Security through sitation if not in	

Substitute for form 1449A/PTO & 1449B/PTO Complete if Known **Application Number SECOND** 10/758,679 **INFORMATION DISCLOSURE** Filing Date January 15, 2004 STATEMENT BY APPLICANT First Named Inventor Jeremy E. Dahl et al. **Examiner Name** (use as many sheets as necessary) 4 of Sheet **Attorney Docket Number** 005950-845

	NON-PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Fleming, I., et al., "A New Oxindole Synthesis", J. Chem. Soc. Perkin Trans. 1:617-626 (1991).
	Fort, Jr., et al., "Adamantane: Consequences of the Diamondoid Structure", Chem. Rev. 64:277-300 (1964)
	Fox, M.A., et al., "Transmission of Electronic Effects by Icosahedral Carboranes; Skeletal Carbon-13 Chemical Shifts and Ultraviolet-Visible Spectra of Substituted aryl-p-carboranes (1,12-dicarba-closo-dodecaboranes)", J. Chem. Soc., Dalton Trans. 401-411 (1998).
	Fritz, G., et al., "Silicon-Carbon Compounds with a Carborundum Structure", <i>Agnew. Chem. Internat. Edit.</i> 9 (6) Abstract (1970).
	Fritz, G., et al., "Uber die Isolierung hoherer Carbosilane aus der Pyrolyse des Tetramethylsilans" Z. anorg. Allg. Chem. 512 :103-125 (1984).
	A. Gagneux et al. in "1-Substituted 2-heteroadamantanes," <i>Tetrahedron Letters</i> No. 17, pp. 1365-1368 (1969).
	Gerzon, et al., "The Adamantyl Group in Medicinal Agents, 1. Hypoglycemic N-Arylsulfonyl-N-adamantylureas", <i>Journal of Medicinal Chemistry</i> 6 (6):760-763 (1963).
	Hass, et al., Adamantyoxycarbonyl, a New Blocking Group. Preparation of 1-Adamantyl Chloroformate", Journal of the American Chemical Society 88(9):1988-1992 (1966).
	Hahn, J.M. et al., "Strongly Enhanced Stereoselectivity in the Reduction of of 5-Substituted Adamantanones by Substitution of C_5 by Positive Nitrogen", J. Am. Chem. Soc. 114 :1916-1917 (1992).
	Hawley, "Condensed Chemical Dictionary", 14th ed., John Wiley & Sons, Inc., 2001.
	Heavens, O.S., "Wave Theory (1): Interference", pp 28-48 from <u>Insight into Optics</u> , John Wiley & Sons, (1991).
	Heavens, O.S., "Interaction of Radiation and Matter", pp 137-145 from <u>Insight into Optics,</u> John Wiley & Sons, (1991).
	Heavens, O.S., "Lasers", pp 244-259 from <u>Insight into Optics</u> , John Wiley & Sons, (1991).
	Hecht, E., "Lasers and Laserlight", pp 577-593 from Optics, Addison-Wesley Publishing Company, (1987).
	J.G. Henkel and W.C. Faith, in "Neighboring group effects in the β-halo amines. Synthesis and solvolytic reactivity of the <i>anti</i> -4-substituted 2-azaadamantyl system," in <i>J. Org. Chem.</i> Vol. 46, No 24, pp. 4953-4959 (1981).
	G.T. Hermanson in " <i>Bioconjugate Techniques</i> " (Academic Press, San Diego, 1996); Preface, pp. 3-16; 27-34; and 40-53.
	Jackman, R.B., "Diamond optoelectronic devices", <i>Properties, Growth and Applications of Diamond</i> , M.H. Nazare et al., editors, University of Aveiro, Portugal, pp 393-398 (2001).
	Jawdosiuk, M., et al., "Photolysis and Thermolysis of 3-Azidonoradamantane. "Anti-Bredt" Imines, 2-aza-adamant-1-ene, and 4-Azaprotoadamant-3-ene", <i>J. Chem. Soc. Perkin Trans</i> 1:2583-2585 (1984).
	John, P., "Toward Diamond Lasers", <i>Science</i> 292 :1847-1848 (2001).
	Johnston, C., et al., "Boron Doping and Characterisation of Diamond", <i>Diamond</i> , edited by M.H. Nazare and A.J. Neves, INSPEC pp. 337-344 (2001).
	Jones, R., et al., "Theory of Aggregation of Nitrogen in Diamond", <i>Properties, Growth and Applications of Diamond"</i> edited by Nazare et al., Ch. A5.1, pp 127-129 (2001)
	Kalish, R., et al., "Doping of Diamond Using Ion Implantation", <i>Diamond</i> , edited by M.H. Nazare and A.J. Neves, INSPEC pp 321-330 (2001).

Examiner	Date
Signature	Considered
ACTION AND ADDRESS OF THE ACTION ADDRESS OF THE ACTION AND ADDRESS OF THE ACTION AND ADDRESS OF	of any and the second property of the second

Substitute for form 1449A/PTO & 1449B/PTO Complete if Known **Application Number** 10/758,679 **SECOND INFORMATION DISCLOSURE** Filing Date January 15, 2004 STATEMENT BY APPLICANT Jeremy E. Dahl et al. **First Named Inventor Examiner Name** (use as many sheets as necessary) **Attorney Docket Number** 005950-845 Sheet 5 of

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
	Kiflawi, I, et al., "Aggregates of Nitrogen in Diamond", <i>Properties, Growth and Applications of Diamond</i> " edited by Nazare et al., Ch. A5.2, pp 130-133 (2001)		
	Kiflawi, I., et al., "The Nitrogen Interstitial in Diamond", <i>Properties, Growth and Applications of Diamond</i> " edited by Nazare et al., Ch. A5.3, pp 134-135 (2001)		
	Koizumi, S., et al., "Ultraviolet Emission from a Diamond pn Junction", Science 292:1988-1890 (2001)		
	Krasutsky, P.A., et al., "A New One-Step Method for Oxaadamantane Synthesis", <i>Tetrahedron Letters</i> 37(32):5673-5674 (1996).		
	Krasutsky, P.A., et al., "Observation of a Stable Carbocation in a Consecutive Criegee Rearrangement with Trifluoroperacetic Acid", <i>J. Org. Chem.</i> 65 :3926-3933 (2000).		
	Kresge, C.T., et al., "Ordered mesoporous molecular sieves synthesized by a liquid-crystal template mechanism", <i>Nature</i> 359 :710-712 (1992).		
	Krishnamurthy et al, "Heteroadamantanes. 2. Synthesis of 3-Heterodiamantanes", Journal of Organometallic Chemistry, 46(7):1389-1390 (1981).		
	Kroschwitz, J.I., ed, "Electrically Conductive Polymers" pp 174-219 from High Performance Polymers and Composites, John Wiley & Sons (1991)		
	Kuhn, S., et al., "Diamond Colour Centres as a Nanoscopic Light Source for Scanning Near-Field Optical Microscopy", <i>Journal of Microscopy</i> 202 (1):2-6 (2001)		
	Kurtsiefer, C., et al., "Stable Solid-State Source of single Photons", <i>Physical Review Letters</i> 85 (2):290-293 (2000).		
	Lansbury, et al., "Some Reactions of α-Metalated Ethers", <i>The Journal of Organic Chemistry</i> 27 (6):1933-1939 (1962).		
	Lawson, S.C., et al., "The Effect of Transition Metals (TM) on the Aggregation Kinetics of Nitrogen in Diamond" <i>Properties, Growth and Applications of Diamond</i> " edited by Nazare et al., Ch. A6.2, pp 172-173 (2001)		
	Liaw, D.J, et al., "Synthesis and Characterization of New Polyamides and Polyimides Prepared from 2,2-bis[4-(4-aminophenoxy)phenyl]adamantane", <i>Macromol. Chem. Phys.</i> 200 (6):1326-1332 (1999).		
	Lippert, E., et al., "Darstellung and UV-Spektren einiger Fluorenon-Derivate", Angew. Chem. 71:429-430 (1959).		
	Lin, et al., "Natural Occurrence of Tetramantane (C22H28), Pentamantane (C26H32) and Hexamantane (C30H36) in a Deep Petroleum Reservoir", Fuel 74(10):1512-1521 (1995).		
	Makarova, et al., "Psychotropic Activity of Some Aminoketones Belonging to the Adamantane Group" Pharmaceutical Chemistry Journal 34:6 (2000).		
	Marchand, A.P., "Diamondoid Hydrocarbons-Delving into Nature's Bounty", Science 299 (2003).		
	Marchand, A.P., "Polycyclic Cage Compounds: Reagents, Substrates, and Materials for the 21 st Century", Aldrichimica Acta 28 (4):95-104 (1995).		
	Marshall et al., "N-Arylsulfonyl-N-alkylureas", Journal of Organic Chemistry 23:927-929 (1958).		
	Marshall et al., "Further studies on N-Arylsulfonyl-N-alkylureas", Journal of Medicinal Chemistry 6:60-63 (1963).		
	McKervey, et al., "Synthetic Approaches to Large Diamondoid Hydrocarbons", <i>Tetrahedron</i> 36:9710992 (1980).		
	J.J. Meeuwissen et. al in "Synthesis of 1-phosphaadamantane," <i>Tetrahedron</i> Vol. 39, No. 24, pp. 4225-4228 (1983)		

Examiner	Date	
-Marrini Ci	VERTICAL 3.1.6 No. 10 1	
Signature	Considered	
Signature	Considered	

Substitute for form 1449A/PTO & 1449B/PTO Complete if Known **Application Number** 10/758,679 **SECOND** January 15, 2004 **INFORMATION DISCLOSURE** Filing Date Jeremy E. Dahl et al. STATEMENT BY APPLICANT First Named Inventor **Examiner Name** (use as many sheets as necessary) **Attorney Docket Number** 8 005950-845 Sheet of

	NON-PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Mikhailov, B.M., et al., "Organoboron Compounds", J. Organometallic Chemistry 250:23-31 (1983).
	Moiseev, I.K., et al., "Reactions of Adamantanes in Electrophilic Media", Russian Chem. Reviews 68(12):1001-1020 (1999).
_	Mochizuki, Y, et al., "Polarizability of silicon clusters", Chemical Physics Letters 336:451-456 (2001).
-	Mukherjee, A.K., et al., "On the Stereochemistry of the Oxidation of 5-Phenyl-2-thiaadamantane", <i>J. Org. Chem.</i> 58 :7955-7957 (1993).
	Newton, M.E., "Neutral ($[N_s]^0$) and ionized ($[N_s]^*$) single substitutional nitrogen in diamond", <i>Properties, Growth and Applications of Diamond</i> , M.H. Nazare et al., editors, University of Aveiro, Portugal, pp 136-141 (2001).
	Neves A.J., et al., "Optical and EPR properties of transition metals in diamond", <i>Properties, Growth and Applications of Diamond</i> , M.H. Nazare et al., editors, University of Aveiro, Portugal, pp 167-171 (2001).
	Nordlander et al., "Solvolysis of 1-Adamantylcarbinyl and 3-Homoadamantyl Derivatives. Mechanism of the Neopentyl Cation Rearrangement", <i>Journal of the American Chemical Society</i> 88:19 (1966).
	Okoroanyanwu, U. et al., "Alicyclic Polymers for 193 nm Resist Applications: Lithographic Evaluation", Chem. Mater. 10:3329-3333 (1998).
	Park, S., et al., "endo-Fullerene and Doped Diamond Nanocrystallite-Based Models of Qubits for Solid-State Quantum Computers", J. Nanoscience and Nanotechnology 1(1):75-81 (2001).
	Parker, I.D., "Carrier Tunneling and Device Characteristics in Polymer Light-Emitting Diodes", <i>J. Appl. Phys.</i> 75 (3):1656-1666 (1994).
	Pasini, D., et al. Advanced Materials 12:347-351 (2000).
	Pate, B.B., "The Diamond Surface: Atomic and Electronic Structure", Surface Science 165:83-142
	Pavesi, L, et al., "Optical Gain in Silicon Nanocrystals", Nature 408:440-444 (2000)
	Pereira, E., "Photoconductivity in Diamond", <i>Properties, Growth and Applications of Diamond</i> , M.H. Nazare et al., editors, University of Aveiro, Portugal, pp 243-244 (2001).
	Prins, J.F., "Large Dopants in Diamond", <i>Diamond</i> , edited by M.H. Nazare and A.J. Neves, INSPEC pp 331-336 (2001).
	Radziszewski, J.G., et al., "2-Azaadamant-1-ene and 4-Azaprotoadamant-3-ene", <i>J. Am. Chem.</i> 106 :7996-7998 (1984).
	Ramdas, A.K., "A1.2 Modifications to ¹² C-diamond by the ¹³ C-isotope: Raman, Brillouin and Infrared Spectroscopy of Phonons", <i>INSPEC</i> , Properties, Growth and Applications of Diamondoids (2001).
	Ramdas, A.K., "A1.3 Electronic Excitations in Isotopically Controlled Diamonds: Infrared and Raman Spectroscopy of Acceptor-Bound Holes", <i>INSPEC</i> , Properties, Growth and Applications of Diamondoids (2001).
	Raty, J.Y., et al., "Quantum Confinement and Fullerenelike Surface Reconstructions in Nanodiamonds", Physical Review Letters 90(3):037401.1-037401.4 (2003)
	Reinhardt, "Biadamantane and some if its Derivatives", Journal of Organic Chemistry 27:3258-3261 (1962).
	Risch, N., et al., "Triple (Grob) Gragmentation. Retro-Mannish Reactions of 1-Aza-Adamantane Derivatives", <i>Tetrahedron Letters</i> 32 (35):4465-4468 (1991).
	Risch, N., et al., "Unusual Reorganization Reactions of 3-Azabicycl[3.3.1]nonanes", J. Am. Chem. Soc. 113:9411-9412 (1991).

Examiner	Date	
Signature	Considered	
	1 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	COO Coulting the count of the line

Substitute for form 1449A/PTO & 1449B/PTO Complete if Known **Application Number** 10/758,679 **SECOND INFORMATION DISCLOSURE** January 15, 2004 Filing Date STATEMENT BY APPLICANT **First Named Inventor** Jeremy E. Dahl et al. **Examiner Name** (use as many sheets as necessary) **Attorney Docket Number** 005950-845 Sheet of

	NON-PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Roberts, P.J., et al., "anti-Tetramantane, a Large Diamondoid Fragment", Acta. Cryst. B33 :2335-2337 (1977).
	Sasaki, T. et al., "New Highly Strained Bridgehead Imines, 2-Azaadamant-1-ene and 4-Azaprotoadamant-3 ene", Tetrahedron Letters 23(47):4969-4972 (1982).
	Sasaki, T., et al., "Synthesis and Acidolysis of 3-endo-Azidomethyl- and 3-endo-Azido-bicyclo[3.3.1]non-6-enes. A Novel Synthesis of 4-Azahomoadamant-4-enes", J. Chem. Soc. Perkin Trans I 2529-2534 (1983).
	Sasaki, T., et al., "Synthesis of Adamantane Derivatives. 42. Novel Synthesis of 5-Methylene-4-azahomoadamantane Derivatives from 2-Methyl-2-hydroxyadamantane and Their Carbon-13 Nuclear Manetic Resonance Spectra", <i>J. Org. Chem.</i> 43 (20):3810-3813 (1978).
	Sasaki, T., et al., "Photolytic Generation of Anti-Bredt Imines from 1-Azidobicyclo[2.2.2]octane, 1-Azidobicyclo[3.3.1]nonane, and 3-Azidonoradamantane", <i>J. Org. Chem.</i> 48 (22):4067-4072 (1983).
	Sasaki et al., "Synthesis of Adamantane Derivatives. II. Preparation of Some Derivatives from Adamantylacetic Acid", <i>Bulletin of the Chemical Society of Japan</i> 41 (1):238-240 (1968).
	Sasaki et al., "Substitution Reaction of 1-Bromoadamantane in Dimethyl Sulfoxide: Simple Synthesis of 1-Azidoadamantane", Journal of the American Chemical Society 92:24 (1970).
	Sasaki et al, "Synthesis of Adamantane Derivatives. 47. Photochemical Synthesis of 4-Azahomoadamant-4 enes and Further Studies on Their Reactivity in Some Cycloadditions", <i>Journal of Organometallic Chemistr</i> 44 (21):3711-3712 (1979).
	Sasaki, T., et al., "Synthesis of Adamantane Derivatives. XII. The Schmidt Reaction of Adamanatane-2-one", <i>J. Org. Chem.</i> 35 (12):4109 (1970).
	Sasaki, T., et al., "Synthesis of adamantine derivatives. 39. Synthesis and acidolysis of 2-azidoadamantanes", <i>Heterocycles</i> 7 (1):315 (1977).
	Scherz, P., "Semiconductors: Chapter 4", pp 123-190, from <i>Practical Electronics for Inventors, McGraw-Hil</i> (2000).
	Scherz, P., "Optoelectronics: Chapter 5", pp 191-212, from <i>Practical Electronics for Inventors, McGraw-Hill</i> (2000).
	Service, R.F., "Can Chemists Assemble a Future for Molecular Electronics?", Science 295:2398-2399 (2002).
	Stetter, et al., "Zur Kenntnis der Adamantan-carbonsaure-(1)", Uber Verbidugen mit Urotropin-Struktur, XV pp. 1161-1166 (1960).
	Stetter, et al., "Ein Beitrag zur Frage der Reaktivitat von Bruckenkopf-Carboniumionen", Uber Verbindunge mit Urotropin-Struktur XXVI, Chem. Ber. 96:550-555 (1963).
	Stetter, et al., "Neue Moglichkeiten der Direcktsubstitution am Adamantan", Uber Verbindugen mit Urotropi Struktur, XLII, Chem. Ber. 102(10):3357-3363 (1969).
	Stetter et al., "Uber Adamantan-phosphonsaure-(1)-dichlorid", <i>Uber Verbindungen mit Urotropin-Strukture XLIV</i> , Chem. Ber. 102 (10):3364-3366 (1969).
	Stetter, et al., "Herstellung von Derivaten des 1-Phenyl-adamantans", Uber Verbindungen mit Urotropin- Strukture, XXXI, Chem. Ber. 97(12):3488-3492 (1964).
	Stetter, H., et al., "Ringschluβreaktionen ausgehend von Bicyclo[3.3.1]nonandion-(3.7) Uber Verbindungen mit Urotropin-Strukture, XXX 3480-3487 (1964).
	Suginome, H., et al., "The Replacement of the Carbonyl Group of Adamantanone by an Oxygen or sulfur Atom and the One-step Transformation of 2-Methyladamantan-2-ol into 2-Oxa-adamantane; An Efficient New Synthesis of 2-Oxa- and 2-Thiaadamantane", Synthesis 741-743 (1986).

Examiner	Date	
Signature	Considered	
ACMANDED A COLUMN COLUMN ASSESSMENT OF THE COL	in Maria De Cook Daniella	a the second attention if much in

Substitute for form 1449A/PTO & 1449B/PTO)	Complete if Known	
SECOND				Application Number	10/758,679
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			DISCLOSURE	Filing Date	January 15, 2004
			APPLICANT	First Named Inventor	Jeremy E. Dahl et al.
(use as many sheets as necessary)		Examiner Name			
Sheet	8	of	8	Attorney Docket Number	005950-845

	NON-PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Suginome et al, "Photoinduced Transformations. 73. Transformations of Five-(and Six-) Membered Cyclic Alcohols into Five-(and Six-) Membered Cyclic Ethers-A New Method of a Two-Step Transformation of Hydroxy Steroids into Oxasteroids", <i>Journal of Organometallic Chemistry</i> 49 :3753-3762 (1984).
	Tada, K., et al., "Optical Properties and Blue and Green Electroluminescence in Soluble Disubstituted Acetylene Polymers", <i>Jpn. J. Appl. Phys.</i> 35 , part 2, No. 9A:1138-1141 (1996).
	Udding et al, "A Ring-opening Reaction of and Some Cyclisations to the Adamantane System. A Quasifavorsky Reaction of a β-bromoketone", <i>Tetrahedron Letters</i> 55 :5719-5722 (1968).
	Verhoeven, J.W, "From Close contact to Long-Range Intramolecular Electron Transfer", Intramolecular Electron Transfer, John Wiley and Sons, pp 603-644 (1999).
	von H.U. Daeniker, "206. 1-Hydrazinoadamantan", Helvetica Chimica Acta 50:2008-2010 (1967).
	Yang, X. et al., "The Synthesis and Structural Characterization fo Carborane Oligomers Connected by Carbon-Carbon and Carbon-Boron Bonds Between Icosahedra", <i>Inorganica Chimica Acto</i> 240 :371-378 (1995).
	Zarda, P., "Single Photo Source", http://scotty.quantum.physik.uni-muenchen.de/exp/sps/sum.html, on-line documents, 11 pages (2001)
	Zheng, S., et al, "Novel Blue Light Emitting Polymers", Polymer Preprints 41(1):822-823 (2002).

Examiner	Date
Signature	Considered